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|-----------------|-------------|----------------------|---------------------|------------------|
| 10/821,375      | 04/08/2004  | Kyung Ku Kim         | 2080-3244           | 1606             |

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EXAMINER

FINEMAN, LEE A

ART UNIT PAPER NUMBER

2872

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/821,375

Applicant(s)

KIM, KYUNG KU

Examiner

Lee Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Objections*

1. Claims 1-4 and 7 are objected to because of the following informalities:

Claim 1, line 1 states "A front filter of a plasma display panel, **in** the front filter attached..." which is grammatically incorrect and should be corrected.

Claim 7, lines 2-3 include the limitation "the transparent adhesive" which lacks antecedent basis.

The dependent claims inherit the deficiencies of the claims from which they depend. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimamura et al., US 6,808,773 B2.

Regarding claim 1, Shimamura et al. disclose in fig. 5 a front filter of a plasma display panel, the front filter attached to a front surface of the plasma display panel (fig. 5) and formed of a plurality of thin films (20 a and b, 18, etc.), the front filter is formed on at least one thin film

(20b) among the plurality of thin films and includes a frame adhesive (22 and 12c) for forming an active display area of the plasma display panel (fig. 5).

Regarding claims 5 and 7, Shimamura et al. further disclose a front filter of a plasma display panel (fig. 5) comprising: a near infrared shielding layer (18) formed on a plasma display panel (fig. 5); an electromagnetic shielding layer (16a and 14) and a ground electrode (not shown, see column 9, lines 2-5) formed on the near infrared shielding layer; a frame adhesive (22 and 12c) formed on the electromagnetic shielding layer (16a and 14); and an antireflection layer (20a or b) attached onto the frame adhesive and formed on the plasma display panel by transparent adhesive (12f), wherein the ground electrode is positioned outside an active display area of the plasma display panel (column 9, lines 2-5).

Regarding claims 2 and 6, Shimamura et al. further disclose wherein the frame adhesive is composed of a transparent adhesive (12c) formed at an area that is overlapped with the active display area (fig. 5), and a black adhesive (22, in so far as the black frame layer must necessarily adhere to the substrate for the layers to bond together) formed at an area except the active display area (fig. 5).

Regarding claims 8 and 9, Shimamura et al. further disclose a fabrication method of a front filter of a plasma display panel comprising the steps of: fabricating a frame adhesive (22 and 12c) composed of a transparent adhesive (12c) formed at an area that is overlapped with an active display area of a plasma display panel (fig. 5), and a black adhesive (22, in so far as the black frame layer must necessarily adhere to the substrate for the layers to bond together) formed at an area except the active display area (fig. 5); and forming the frame adhesive on at least one thin film (14 or 18) among a plurality of thin films (20 a and b, 18, etc.) constituting the front

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filter of the plasma display panel and wherein the black adhesive (22) is formed on a base film respectively included in the plurality of thin films (14 and 18).

Regarding claim 10, Shimamura et al. further disclose wherein the step for fabricating the frame adhesive comprises the steps of: forming the black adhesive (22) on the base film (18) except the active display area (fig. 5); and forming the transparent adhesive (12c) on an entire surface of the base film (18) where the black adhesive has been formed (fig. 5).

Regarding claim 11, Shimamura et al. further disclose wherein the step for fabricating the frame adhesive comprises the steps of: forming the transparent adhesive (12c) on an entire surface of the base film (14); and forming the black adhesive (22) on the base film (14) except the active display area.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimamura et al.

Shimamura et al. disclose the claimed invention except for wherein the steps for fabricating the frame adhesive include using screen masks. However, Shimamura et al. further teaches that screen masks are used to form very accurate, specific patterns as demonstrated by using a screen mask to form the copper foil of the electromagnetic shielding layer shield (see column 7, lines 3-8). It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to use screen masks to form the frame adhesive to provide very accurate, specific pattern shapes for the frame adhesive layers.

6. Claims 3, 4 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimamura et al. in view of Saito et al., US 6,469,440 B1.

Shimamura et al. disclose the claimed invention except for the black adhesive being formed by mixing the transparent adhesive with a black material, wherein the black material is a carbon black of 0.05.about.50%, and wherein the black material is a black pigment or a black dye. Saito et al. teaches use of a black adhesive in a front filter of a plasma display panel, wherein the black adhesive being formed by mixing the transparent adhesive with a black material, wherein the black material is a carbon black or a black pigment or a black dye (column 16, lines 17-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the black adhesive from a transparent adhesive with a black material as suggested by Saito et al. to simplify manufacture and inventories by using the same materials (i.e. transparent adhesive) in both parts of the frame adhesive. Regarding claims 4 and 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the black material 0.05.about.50% of the mixture, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering an optimum value or working ranges involves only routine skill in the art. One would have been motivated to make the black material 0.05.about.50% of the mixture for the purpose of supplying the correct opacity to the frame. *In re Aller*, 220 F.2d 454, 456 105 USPQ 233, 235.

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tone et al., US 2002/0042162 A1 and Watanabe, US 2004/0076835 A1 disclose front filters with frame adhesive members.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF  
September 16, 2005

  
MARK A. ROBINSON  
PRIMARY EXAMINER